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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/072,533	02/08/2002	Yohei Ishikawa	P/1071-1520	5171

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EXAMINER	
LEE, BENNY T	

ART UNIT	PAPER NUMBER
2817	

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Patent and Trade rk Office

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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	5

DATE MAILED:

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 17 March 2003 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire three (3) month(s), _____ days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☐ Notice of References Cited by Examiner, PTO-892.
2. ☐ Notice re Patent Drawing, PTO-948.
3. ☐ Notice of Art Cited by Applicant, PTO-1449
4. ☐ Notice of Informal Patent Application, Form PTO-152
5. ☐ Information on How to Effect Drawing Changes, PTO-1474
6. ☐ _____

Part II SUMMARY OF ACTION

1. ☒ Claims 5-20 are pending in the application.

   Of the above, claims _____ are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 5-7, 8 are rejected.

5. ☒ Claims 9-20 are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.

8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. These drawings are ☐ acceptable; ☐ not acceptable (see explanation).

10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved. ☐ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.

12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. _____; filed on _____.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

PTOL-326 (Rev. 7-82) EXAMINER'S ACTION

SN 72533

The disclosure is objected to because of the following informalities: In the replacement paragraph to page 19, line 1 to page 20, line 7, 12th & 13th lines therein, note that "capacitive" should be rewritten as --capacitance-- at each occurrence for clarity. Page 23, last line, note that uninitiated alterations improperly appear in the paragraph text and should be corrected by means of replacement paragraph. Attached is a copy of page 23, as originally filed, indicating the non initialed alteration. Appropriate correction is required.

The disclosure is objected to because of the following informalities: Applicant's are advised that all labeled features/elements in the drawing figures should be correspondingly described in the specification. For example, reference labels (W_1, 100) need description relative to Figures 3, 5, respectively and all the labeled features/elements of "figure 8" need explicit description in the specification. While applicants' have included a statement regarding like reference labels referring to like elements in different drawings, such statement would not cover those reference labels which have not been previously described, like those noted in the above objection. Appropriate correction is required.

The drawings are objected to because in Fig 5, reference labels (*l*1, *l*2) appear that they should correctly be (L_1, L_2) as per the specification description thereof. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Contrary to applicants' assertion, note that no formal drawings were filed with the last amendment. Accordingly, the drawing objections remain outstanding.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CAR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 5-7; 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the EP ('604) reference in view of Ishikawa et al ('485), both of record.

The EP reference in Fig. 17 thereof discloses a dielectric line (LN 303) comprised of a first slot between conductive layer (321). Although not shown in Fig 17, a corresponding slot in an opposed conductive layer is provided (e.g. as exemplarily depicted in Fig. 1. Note that resonators (66,69) are coupled at ends of the dielectric line (LN 303) as well as an electronic device (305). A slot line (LN 304) is coupled to the resonators as well the dielectric line (LN 303).

However, the EP reference differs from the claimed invention in that mode conversion structures are lacking therein.

Ishikawa et al (Fig. 1A) depicts a dielectric line structure including a slot line structure (6) for mounting an electronic component (15) and including mode conversion structures (7a, 7b) associated therewith.

Accordingly, it would have been obvious in view of the references, taken as a whole, to have added the mode conversion structures (7a, 7b), taught by Ishikawa et al, to the slot lines (LN302, LN303) of the EP reference, as to provide coupling to circuit (305). Such a modification would have imparted the advantageous benefit of better propagation due to the improved mode conversion from the dielectric line mode to the slot line mode in the circuit, thereby suggesting the obviousness of such a modification.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CAR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CAR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CAR 3.73(b).

Claims 5, 6; 8 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 6, 7 of U.S. Patent No. 6445255. Although the conflicting claims are not identical, they are not patentably distinct from each other because the more comprehensive claims of the cited patent contain at least the same limitations recited in the cited application claims and thus "anticipated" the cited application's claims.

Contrary to applicants' assertion, no terminal disclaimer has been filed with the last response. Accordingly the obviousness double patenting rejection remains outstanding.

Applicant's arguments filed 17 March 2003 have been fully considered but they are not persuasive.

Applicants' have advance as their main argument that the main line (LN303) in Ishikawa et al, being already mode compatible with the circuit (305) and the resonators (66, 69), would not require any mode conversion structure, and thus there would no motivation to provide a mode coupling structure.

Contrary to applicants' assertions, the examiner believes that applicants' have misconstrued the disclosure of the EP reference. Note that the examiner concurs with applicants' assertion that the dielectric line (LN303) is in the same mode (i.e. TE_{010}) as that of the dielectric

resonators (66, 69) since both those structures are analogous (i.e. the closed resonator slots function analogously to the bounded dielectric). However, the examiner must disagree with applicants' characterization that circuit (305) operates in the same mode as dielectric lines (LN 302, LN303). For the circuit (305) to operate in the same mode as the dielectric lines (LN302, LN303), the circuit (305) must also be a dielectric line. Clearly this is not the case, since the circuit (305), being a separate and discrete element, is not a dielectric line. Therefore, such circuit (305) not being a dielectric line would obviously mean that there has to be some conversion means between circuit (305) and the dielectric lines (LN302, LN303). For example, as taught by Ishikawa et al, a slot line conversion structure for converting between the active circuit and a dielectric line is an exemplary teaching of one type of conversion structure. Accordingly, as pointed out above, because the circuit (305) and the dielectric lines (LN302, LN303) are distinctly different structures, there indeed is an obvious need and thus motivation to provide a mode conversion structure in the manner set forth in the above rejection.

Claims 9-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benny Lee whose telephone number is (703) 308 4902.

Benny Lee

BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817

B. Lee

May 30, 2003